

CHAPTER IV.

YIELD AND WORKING.

1.—DEPARTMENTAL OPERATIONS.

TIMBER AND FIREWOOD.

149. The results of timber and firewood operations of the North Thána division are given in the following table :—

No.	Range.	Number of Coupes.	Area.	YIELD.		Cost.	Receipts.			REMARKS.
				Timber.	Firewood.					
			Acres.	Pieces.	Cart-loads.	Rs. a. p.	Rs. a. p.			
1	Sálsette ...	1	81	1,645	892	642 0 9	1,337 0 0			
2	Bassein ...	5	232	7,941	6,483	2,792 10 9	12,656 1 6			
3	Máhm ...	3	133	8,810	615	955 7 3	3,389 4 0			
4	Umbargaon .	4	183	4,152	1,396	1,086 6 6	5,216 14 0			
	Total ...	13	579	22,548	9,386	5,476 9 3	22,599 3 6			

150. Of the above material 841 cart-loads of firewood were sold on permits to villagers for household consumption, and the following quantities of material were sold by retail auction in small lots to meet the requirements of the local population; but the competition at the sales was very feeble and the demand was so small that all the remaining material had to be sold to dealers for trade purposes :—

No.	Range.				Timber.	Receipts.			Remarks.
					Pieces.	Rs. a. p.			
1	Sálsette ...	...	...	...	1,645	1,337 0 0			
2	Bassein ...	...	...	...	7,584	5,340 8 0			
3	Máhm ...	...	...	...	1,074	725 4 0			
4	Umbargaon ...	...	...	...	2,238	3,324 6 0			
	Total ...				12,541	10,727 2 0			

151. The attendance and demand generally for material at the retail auction sales have greatly fallen off during the year. This is due to the very large increase in the number of contract fellings, i. e. sales of standing timber and firewood by compartments, to contractors, to which villagers now prefer to go for their wants in timber and other forest produce. It will thus be seen that private enterprise has established a local timber trade which can satisfy and is satisfying all the requirements of local supply, and that the intervention of the Forest Department in the retail wood trade is as unnecessary as it is contrary to the principles of healthy administration.

152. Under Government Resolution No. 7418, dated 8th November 1888, in the Revenue Department, no special arrangements were made to supply the sugar-boilers with firewood, it being decided that these people should provide themselves with firewood from the contractors, who have vast quantities of firewood in their compartments and are ready to sell to all comers, not only for cash payments as the Forest Department must necessarily do in their sales, but also on the credit system.

South Thána Division.

153. Departmental fellings were made on a very limited scale. It had been decided that the coupes which remained unsold at the annual auctions should be cut departmentally; but fortunately very few coupes, except in the Bhiwandi range, remained unsold.

154. The following statement gives the result of the year's operations, the number of trees in the coupes being 4,000 :—

No.	Range.			Number of Coupes.	Acreage.	Cost of felling.			Price realised.			Net profits.		
						Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1	Bhiwandi	...	...	5	188	1,949	9	10	5,058	4	0	3,108	10	2
2	Kalyán	...	...	1	32	157	8	1	508	0	0	350	7	11
3	Khálápur	...	...	1	40	291	6	5	750	0	0	458	9	7
Total				7	260	2,398	8	4	6,316	4	0	3,917	11	8

155. In addition to these coupes 2,000 teak trees were cut departmentally in the Karjat range at a cost of Rs. 365-15-0, and the sale-proceeds amounted to Rs. 3,487-2-0, leaving a net profit of Rs. 3,121-3-0; the loppings of these trees produced 2,640 khandis of firewood.

East Khándesh Division.

156. The following statement shows the quantity of different kinds of material cut departmentally :—

No.	Range.			Bábul Logs.	RAFTERS.		FUEL, KHANDIS.		REMARKS.
					Anjan.	Teak.	Anjan.	Bábul.	
1	Bhusával	500	2,175	*Mixed fuel.
2	Chálisgaon	...	...	...	...	...	*1,550	...
3	Chopda	...	...	...	...	5,000	440	...
4	Edalabad	...	...	...	...	...	...	3,000
5	Jalgaon	...	...	...	...	...	...	115
6	Jámner	...	...	...	...	15,000	...	245
7	Ráver	...	...	...	2,500	...	1,000	...
8	Sávda	...	...	...	...	...	1,000	...
Total				500	2,500	20,000	3,990	5,535	

And the cost and receipts of these operations are as under :—

No.	Range.			Cost.	Receipts.	Net Revenue.
				Rs.	Rs.	Rs.
1	Bhusával	...	...	748	3,044	2,296
2	Chálisgaon	...	...	319	1,500	1,181
3	Chopda	...	...	313	2,527	2,214
4	Edalabad	...	...	938	3,100	2,162
5	Jalgaon	...	...	33	205	172
6	Jámner	...	...	582	5,394	4,812
7	Ráver	...	...	398	1,140	742
8	Sávda	...	...	312	900	588
Total				3,643	17,810	14,167

West Khándesh Division.

157. The departmental operations of the year consisted in cutting teak, khair, anjan and bábul trees, which were subsequently converted into timber pieces or fuel according to the quality of the wood. The following statement will give the details of teak fellings:—

No.	Range.	Number of Trees.	Converted into Pieces.	Cost.	Receipts.	Remarks.
			No.	Rs. a. p.	Rs. a. p.	
1	Nandurbár ...	9,700	13,000	300 0 0	3,377 0 0	
2	Navápur ...	3,700	20,000	704 9 0	2,425 0 0	6,200 pieces not sold.
3	Pimpalner ...	1,414	10,002	412 0 0	651 8 0	8,129 do.
4	Shirpur ...	10,772	17,755	480 0 0	6,147 1 0	
5	Sháháda ...	4,275	16,520	497 10 0	4,576 0 9	
6	Taloda ...	6,527	13,586	856 13 0	2,682 8 0	
	Total ...	36,388	90,863	3,251 0 0	19,859 1 9	

153. In addition to the above, 1,062 pieces of teak remaining unsold at the close of last year were sold for Rs. 60; and the realizations on account of timber cleared from forest boundary lines amounted to Rs. 320-6-0.

159. The fuel operations consisted of khair, anjan and bábul, and the details are as under:—

No.	Range.	Number of Trees.	Cubic feet rough stack.	Cost.	Receipts.	Remarks.
				Rs. a. p.	Rs. a. p.	
1	Dhulia ...	23,106	294,100	1,473 7 6	1,590 0 0	230,100 cubic feet not sold.
2	Nizámpur ...	2,590	67,837	255 4 0	989 12 0	
3	Sindkheda ...	21	425	0 12 0	4 13 0	325 do. do.
	Total ...	25,717	362,362	1,729 7 6	2,584 9 0	

160. The Public Works Department bought 727 teak pieces for Rs. 416-12-0.

Násik Division.

161. The departmental operations in timber and firewood are given in the following table:—

No.	Range.	Teak Logs.	FIREWOOD.			Cost.	Receipts.	REMARKS.
			Khandis.	Logs.	Cubic feet.			
						Rs. a. p.	Rs. a. p.	
1	Násik ...	184	...	...	45,000	348 6 7	604 14 0	
2	Igatpuri ...	2,000	50	174	27,406	275 0 7	524 7 0	
3	Sinnar ...	812	20	...	...	208 5 8	295 0 0	
4	Niphád ...	...	...	...	4,680	52 10 8	156 5 0	
5	Chándvad ...	1,010	...	...	...	70 2 7	605 15 0	
6	Yeola ...	...	...	...	...	27 10 8	...	
7	Nándgaon ...	...	...	...	54,000	277 10 7	800 8 0	
8	Málegaon ...	950*	...	...	48,726	248 3 10	908 13 0	*Anjan logs.
9	Kalvan ...	8,540	50	...	4,860	309 14 10	2,462 0 0	
10	Báglán ...	2,340	100	...	...	130 2 10	693 5 0	
11	Peint ...	4,196	...	...	...	391 7 2	17,728 11 0	
12	Dindori ...	10,172	592	...	...	398 15 6	5,268 10 11	These amounts include the realizations from timber remaining on hand from last year.
	Total ...	30,213	812	174	1,84,672	2,738 11 6	30,048 8 11	

Ahmednagar Division.

162. The following is a statement of felling operations :—

No.	Range.	Number of Trees.	YIELD.		Cost.	Receipts.	REMARKS.
			Timber Rafter.	Firewood.			
	<i>Teak.</i>			C. ft.	Rs. a. p.	Rs. a. p.	
1	Akola	11,244	30,169	14,698	666 0 0	3,865 2 11	The firewood shown consists of lop-pings, &c., of the trees cut.
2	Sangamner	7,974	20,077	6,301	483 7 6	3,024 8 9	
	Total ..	19,218	50,246	20,999	1,149 7 6	6,889 11 8	
	<i>Jambul.</i>						
1	Akola	2,571	10,074	7,186	189 13 6	238 10 0	
2	Sangamner	1,064	5,040	5,125	99 9 0	353 3 6	
	Total ...	3,635	15,114	12,311	289 6 6	591 13 6	

In addition to the above, 41,029 cubic feet of firewood were cut at a cost of Rs. 203-10-0 in Shrigonda, Shevgaon, Nevása, Kopargaon and Sangamner ranges, and the sale-proceeds amounted to Rs. 1,123-13-0.

Poona Division.

163. The material worked out departmentally is as under :—

No.	Range.	Number of Teak Trees.	YIELD.		Cost.	Receipts.	REMARKS.
			Pieces.	Firewood.			
				C. ft.	Rs.	Rs.	
1	Junnar	5,148	12,376	1,400	2,935	27,699	
2	Ambeagaon	19,000	33,995	13,000			
3	Khed	12,289	48,094	8,000			
4	Mával	1,132	1,739	262			
5	Haveli	10,351	20,850	34,500			
6	Purandhar	8,000	19,294	6,300			
	Total ...	46,920	136,348	62,462	2,935	27,699	

164. The following statement will give the details of firewood operations :—

No.	Range.	Number of Trees.	MATERIAL.		Cost.	Receipts.	REMARKS.
			Logs.	Stacks.			
			Cubic feet.	Cubic feet.	Rs.	Rs.	
1	Junnar	77	1,664	2,964	37	339	
2	Haveli	503	7,085	13,585	298	2,792	
3	Bhimthadi	7,964	42,989	85,211	1,106	4,667	
4	Báramati	6,175	1,601	18,813	235	757	
5	Sirúr	8,581	6,607	50,127	764	2,385	
	Total ...	23,300	59,946	170,700	2,430	10,940	

Sátára Division.

165. The following statement exhibits the departmental operations in teak, including teak trees in occupied survey numbers the occupants of which declined to purchase the trees at the valuation rates :—

No.	Range.				Yield in Pieces.	Cost.			Receipts.		
						Rs.	a.	p.	Rs.	a.	p.
1	Jávli	...	...	...	3,062.	83	5	0	254	0	0
2	Karád	...	...	...	5,635	190	15	0	2,095	0	0
3	Koregaon	...	...	...	2,783	80	1	0	847	0	0
4	Pátan	...	...	...	18,811	745	2	9	6,793	0	0
5	Sátára	...	...	...	7,431	162	8	0	1,036	0	0
6	Shirála	...	...	...	11,603	291	5	0	3,200	0	0
7	Wái	...	...	...	3,069	89	15	6	1,000	0	0
Total					52,394	1,643	4	3	15,225	0	0

The junglewood pieces cut in addition are as under :—

No.	Range.				Pieces.	Cost.			Receipts.			Remarks.
						Rs.	a.	p.	Rs.	a.	p.	
1	Mahábaleshvar	...	...	...	*4,563	149	13	8	358	13	5	*610 pieces remained unsold at the end of the year.
2	Pátan	...	...	...	2,900	154	13	6	438	12	0	
3	Tásgaon	...	...	...	318	89	7	0	423	11	0	
Total					7,781	394	2	2	1,221	4	5	

166. The firewood fellings were as under, including loppings from teak fellings :—

No.	Range.				Cubic feet.	Cost.			Receipts.		
						Rs.	a.	p.	Rs.	a.	p.
1	Koregaon	...	...	...	1,096	.....			31	5	0
2	Karád	...	...	...	13,342	69	15	0	218	9	6
3	Khandála	...	...	...	2,250	20	13	0	59	14	3
4	Mahábaleshvar	...	...	...	74,396	1,209	15	6	1,946	8	0
5	Pátan	...	...	...	33,000	226	10	9	789	7	0
6	Sátára	...	...	...	12,408	125	8	0	257	11	0
7	Shirála	...	...	...	6,188	22	13	0	79	10	0
8	Tásgaon	...	...	...	17,010	.....			184	4	0
9	Wái	...	...	...	14,715	93	1	0	334	8	0
Total					174,405	1,768	12	3	2,901	12	9

436 khandis and 14 maunds remained unsold in the Malcolmpeeth Depôt at the close of the year.

167. No charcoal operations were undertaken departmentally, as the results of the previous years were not encouraging.

Sholápur Division.

168. There are no teak fellings in this division, but 1,352 cubic feet of bábul and nimb timber were cut at a cost of Rs. 15 in the Sholápur and Pandharpur ranges and sold for Rs. 173-4-0.

169. Firewood operations were undertaken in the Sholápur, Bársi, Mádha, Karmála and Pandharpur ranges, and 18,172 cubic feet of firewood were cut at a cost of Rs. 144-8-9 and sold for Rs. 1,134-0-6, leaving 1,454 cubic feet unsold on hand at the close of the year.

Surat Division.

170. The departmental fellings in this division are as under :—

No.	Range.	YIELD.					Cost.	Receipts.	REMARKS.
		Rafters.	Kh.	Ft.	In.	P.			
							Rs. a. p.	Rs. a. p.	
1	Dángs...	...	2,272 1,174	1 10	1 2	10 7	2,840 1 8	22,713 14 11	
2	Mándvi	...	2,976	...	...	...	588 8 1	*18,244 12 3	*This amount includes the sale-proceeds of 49,871 rafters from last year.
Total		...					3,428 9 9	40,958 11 2	

Panch Maháls Division.

171. The following statement gives the details of departmental operations undertaken in this division :—

No.	Range.	YIELD.		Cost.	Receipts.	REMARKS.
		Teak Rafters.	Firewood.			
			C. ft.	Rs. a. p.	Rs. a. p.	
1	Godhra	27,839	114,762	578 14 10	704 0 0	
2	Hálol	3,969	...	125 1 1	648 10 0	
3	Kálol	...	71,424	376 0 9	.....
Total		31,808	186,186	1,080 0 8	1,352 10 0	

172. Of the above material 12,263 rafters of the value of Rs. 724-2-7 were handed over from the Godhra Depôt to the Revenue Department as per Government Resolution No. 3404, dated 28th May 1888, as free grants to the villagers of Kuba in the Daskroi Táluka of the Ahmedabad Collectorate and the remaining material at the Godhra Depôt was supplied to the sufferers by the Godhra fire, as per Government Resolution No. 2952, dated 17th April 1889.

BÁMBUS.

173. In the Sátára Division bámbus were cut departmentally last year; but this year no departmental operations were undertaken anywhere, as the sale results of previous years were not satisfactory; for unless bámbus are disposed of speedily they deteriorate, and it is difficult to find purchasers for them.

OTHER MINOR PRODUCE.

North Thána Division.

174. The special departmental arrangements for cutting and preparing ain bark to meet the requirements of the Koli fishermen have been discontinued, as larger quantities of bark than this Department used to exploit formerly

are now obtainable from the contractors, who purchase timber standing in compartments which contain many ain trees, and who bring the bark to the coast towns and villages for sale.

175. The hirda in the Kewnala forests of the Váda range, which has hitherto been collected with the Mokháda hirda and sold to the credit of the South Thána division accounts, was departmentally collected, sold and its price credited to the North Thána division during the year with the following result:—

Quantity.	Cost.	Receipts.	Net Result.	Rate per Khandi.	Remarks.
Kh. m. s.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
*108 26 13	679 14 10	1,727 6 6	1,047 7 8	16 0 0	*Out of this one khandi hirda was retained for sowing purposes.

South Thána Division.

176. The only departmental operation under this sub-head was the collection of hirda. The fruit is collected in the forests by the Thákurs and other wild tribes and brought to depôts, where it is weighed and paid for by depôt officers appointed for this duty. The hirda crop during the year was exceptionally good; there was an increase of 61 khandis over the quantity of last year. The following statement will give the details of the operation:—

Number.	Range.	Quantity.	Cost.	Receipts.
		Kh. m. s.	Rs. a. p.	Rs. a. p.
1	Mokháda	158 18 2	968 0 0	2,637 8 4
2	Khardi	85 6 12	692 11 8	1,417 3 3
3	Sháhápúr	13 0 6	85 8 4	216 6 1
4	Kalyán	5 11 12	33 0 0	90 2 8
5	Karjat	2 21 10	44 0 0	45 11 6
	Total ...	265 3 0	1,823 4 0	4,406 15 10

West Khándesh Division.

177. 58 cart-loads of leaves of the anjan tree, *Hardwickia binata*, collected at the departmental fellings in Dhulia range were sold for Rs. 10, and 31 bundles of teak leaves collected at Pimpalner remained unsold at the close of the year.

Násik Division.

178. No departmental collection of hirda was undertaken in this division, but it was collected under a share system, 51 khandis, 3 maunds and 9 sers were thus received in the Igatpuri and Násik ranges, but it all remained unsold at the close of the year owing to very unsatisfactory offers which had been made for it.

Ahmednagar Division.

179. 340 Bombay khandis, 4 maunds and 12 sers of hirda were departmentally collected and sold at Rs. 27-5-0 per Deshi khandi, giving a total revenue of Rs. 3,743-2-10. The cost of collection amounted to Rs. 2,258-9-3. The increased collection of hirda during the year is due to the unusually slight loss by high winds and rain at the commencement of the season; and it is hoped that the system of roads now in course of construction or proposed, in the Akola gháts, will in future facilitate the transport of this produce and thus enhance its value.

Poona Division.

180. The hirda revenue owing to increased collections shows a considerable advance over last year. The details of the operation are as under:—

No.	Range.			Quantity collected.		Cost.			Receipts.			Remarks.
				K.	m.	Rs.	a.	p.	Rs.	a.	p.	
1	Junnar	...	...	10	4	.....			151	3	3	
2	Khed	...	...	19	5	.....			267	9	4	
3	Ambegaon	...	...	22	2	.....			378	13	1	
4	Mával	...	...	21	0	.....			226	9	3	
5	Mulshi	...	...	198	8	1,348	8	3	2,513	11	11	
	Total			271	9	1,348	8	3	3,537	14	10	

181. The share system of hirda collection was extended to Mával range this year, but it was found impossible to extend it to Mulshi. The yield has been unprecedented in Mulshi owing to special exertions on the part of the local forest establishment.

Sátára Division.

182. A departmental collection of hirda was undertaken in four ranges as remunerative prices for the right of collecting could be obtained only in the two ranges of Sátára and Wái. The departmental collections not only exceeded expectations, but the prices realised were also very good. 856 khandis 23 maunds and 10 seers were collected at a cost of Rs. 5,745, and the sale proceeds of 678 khandis out of the quantity amounted to Rs. 13,478.

183. The right of collection of shikakai, the pod of the *Acacia concinna*, was sold for Rs. 766, and the balance on hand from the previous year was also sold for Rs. 1,398-12-9.

Sholápur Division.

184. There were no departmental operations under this head in this division, but 8 khandis and 2 maunds of bábul bark stripped from the trees cut departmentally were sold for Rs. 16-2-6.

185. The following statement will show the results of hirda collection of the year under report and of the preceding year:—

No.	Division.			Yield.		Cost.		Receipts.		
				1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	
				K. m. s.	K. m. s.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	North Thána	...	...	.....	108 26 13	.....	679 14 10	.....	1,727 6 6	
2	South Thána	...	...	204 0 12	265 3 0	1,614 15 8	1,823 4 0	2,448 5 9	4,406 15 10	
3	Násik	...	...	100 21 13	51 3 9	630 10 1	56 5 8	1,061 7 7	.....
4	Ahmednagar	...	...	170 3 6	340 4 12	1,144 4 0	2,253 9 3	2,500 12 10	3,743 2 10	
5	Poona	...	...	142 9 6	271 25 3	556 11 9	1,348 8 3	2,336 14 1	3,537 14 10	
6	Sátára	...	...	385 15 10	349 17 7	2,699 5 9	5,745 2 9	5,246 2 11	13,477 10 1	
	Total			1,002 23 5	1,386 25 2	6,645 15 3	11,911 12 9	13,593 11 2	26,893 2 1	

2.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS.

*TIMBER AND FIREWOOD.**North Thána Division.*

186. During the year 109 compartments which had been laid out on the ground by the Divisional Forest Officer Working Plans, and carefully defined by cairns and other boundary marks, and in which a careful selection of standards

and seed bearers for reservation had been made, were offered for sale, but only 86 of these were sold, the remaining 23 being kept back as the offers for them were too low.

187. The results of the sales are as under :—

No.	Range.	Number of Coupes.	Area of Coupes.	YIELD.		Receipts.
				Timber.	Firewood.	
			Acres.	Pieces.	Khandis.	Rs.
1	Sálsette ...	3	71	2,682	558	1,866
2	Bassein ...	13	627	19,599	15,810	21,446
3	Máhim ...	30	1,299	66,272	36,996	38,003
4	Váda ...	8	389	48,628	2,290	18,611
5	Dáhánu ...	26	1,340	110,449	12,484	57,336
6	Umbargaon ...	6	244	13,121	7,991	10,334
	Total ...	86	3,970	260,751	76,129	147,596

188. Under the permit system which is still employed as a means of meeting the requirements of the local population, but which, it is hoped, will shortly be abandoned as the people have so many facilities for obtaining timber, firewood and other material from the contractors' fellings, the following sums were realised on account of dead-wood removed from the forests :—

No.	Range.	Head-loads at 9 pies, man 6 pies, woman 3 pies, child.	Large Carts at Rs. 1 each.	Small Carts at 8 annas each.	Kowl Khandis at 6 annas each.	Total.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Sálsette ...	447 0 0	.....	13 0 0	.....	460 0 0
2	Bassein ...	16 0 0	1,309 0 0	102 0 0	516 0 0	1,943 0 0
3	Máhim ...	.....	.....	1,726 0 0	407 0 0	2,133 0 0
4	Dáhánu ...	.....	.....	1,650 0 0	.....	1,650 0 0
5	Umbargaon ...	.....	.....	172 0 0	.....	172 0 0
6	Váda ...	.....	.....	17 0 0	.....	17 0 0
	Total ...	463 0 0	1,309 0 0	3,680 0 0	923 0 0	6,375 0 0

South Thána Division.

189. The timber removed by purchasers realised on the whole very fair prices, and the sales were all effected early. These sales were of two kinds, one of coupes by area, and the other of teak trees marked for the axe. The following statements exhibit the results of such sales :—

Coupe sales.

No.	Range.	Number of Coupes.	Area.	Receipts.		Remarks.
			Acres.	Rs.	a. p.	
1	Bhiwndi ...	11	497	16,162	0 0	
2	Kalyán ...	14	551	13,166	8 0	
3	Khálápur ...	2	104	1,981	0 0	
4	Sháhápur ...	2	179	3,831	0 0	
	Total ...	29	1,331	40,140	8 0	

Sales of Teak Trees.

No.	Range.			Number of Trees.	Prices realized.			Remarks.
					Rs.	a.	p	
1	Sháhápur	16,000	15,640	0	0	The average price per 100 trees was Rs. 95-8.
2	Khardi	...	...	8,000	7,516	0	0
3	Mokháda	...	...	8,000	9,110	0	0
4	Murbád	...	...	12,000	11,310	12	0
5	Karjat	...	...	19,740	16,851	4	0
6	Khálápur	...	...	8,000	8,081	0	0
Total				71,740	68,509	0	0	

190. The forest growth on the Tansa Lake bed was sold last year to Mr. Bhojabhai Allarakhé for Rs. 1,10,001, to be paid in ten quarterly instalments, and the four of these, amounting to Rs. 44,000, which became due, were punctually paid by him during the year, leaving three instalments still to come in.

191. In connection with the Tansa Water-works, extensive sales of wood were made to different companies. 12,088 teak and 12,507 other trees were sold to Colonel Beaumont, and Messrs. Walsh, Lovett, Mitchel and Co., at a price of Rs. 11,569-4-0, and 1,959 teak and 5,190 other trees were sold to Messrs. Glover and Co. at a price of Rs. 3,364-8-0. Special coupes were marked, and set out for the contractors to fell and exploit all the unreserved timber from and the operations were conducted by them with care and consideration for the standards. The contractors of the Tansa Lake and of the duct line have maintained excellent discipline over the thousands of workmen they employ, so that the forest reserves have not suffered at all in the neighbourhood of their works. Timely arrangements have been made to provide all probable requirements of timber and firewood, and cordial relations have been maintained between the contractors and the forest officers, and the officers of the Bombay Municipality, who have heartily co-operated with each other in carrying out a great public work, and at the same time in protecting, as far as possible, the interests of the contractors, of the Municipality, and of the State.

192. The quantity of firewood removed from the forests by consumers in cartloads and head-loads, on permits obtained by payment of fees, amounted to khandis 2,192, which realized Rs. 1,198-6-11.

193. In the two Khándesh-divisions timber to the value of Rs. 18,166 and firewood worth Rs. 11,101 were removed by purchasers under the permit system. The following statement will give the realizations from timber and firewood in all the other divisions of the Northern Circle :—

No.	Division.			REALIZATIONS.			REMARKS.
				Timber.	Firewood.	Total.	
				Rs.	Rs.	Rs.	
1	Násik	...	...	8,488	808	9,296	
2	Ahmednagar	...	...	204	641	845	
3	Poona	...	...	130	1,673	1,803	
4	Sátára	...	...	2,805	.....	2,805	
5	Sholápur	...	...	290	.....	290	
6	Surat	...	...	35,429	2,284	37,713	
7	Panch Maháls	...	...	33,893	932	34,825	
Total				81,239	6,338	87,577	

BA'MBUS.

194. In the North Thána division bámbus were removed by villagers for agricultural purposes on the permit system, and the following statement shows the details of amounts realized :—

No.	Range.	Padhai Bámhus @ Rs. 5 per 100.	Manvel Bámhus @ Rs. 3 per 100.	Bundhi Bámhus @ 8 annas per cart.	Zitas @ 3 annas per cart.	Karal @ 4 annas per cart.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Sálsette ...	89	21	...	2	44	156
2	Bassein ...	579	316	643	232	303	2,073
3	Máhim ...	115	428	801	256	63	1,663
4	Dáhánu ...	412	236	416	103	11	1,178
5	Umágaon ...	4	22	79	46	23	174
6	Váda ...	80	28	139	7	...	254
	Total ...	1,279	1,051	2,078	646	444	5,498

In addition to the above, 3,00,000 manvel bábhus were sold, to meet the requirements of trade, for Rs. 6,560.

195. In the South Thána division 150,000 manvel bábhus were sold in the Mokháda range at Rs. 2 per 100, realizing Rs. 3,000, and other petty sales of bábhus to the extent of Rs. 544, make up the total realizations Rs. 3,544 in this division.

196. The following statement exhibits the realizations from bábhus in all the other divisions of the Northern Circle:—

No.	Division.	Bámhus in Numbers.	Amount realized.	Remarks.
			Rs. a. p.	
1	East Khándesh ...	No. 256,800	3,719 0 0	
2	West Khándesh ...	Head-loads 1,040		
		256,772	2,562 7 4	
3	Násik ...	No. 178,407	3,824 9 9	
		Cart-loads 91	106 8 0	
		Head-loads 831	56 15 0	
4	Ahmednagar ...	33,441	342 5 1	
5	Poona ...	169,849	1,753 0 0	
6	Sátára ...	18,357	114 6 0	
7	Surat ...	627,404	12,237 0 5	
8	Panch Maháls ...	162,123	1,986 0 6	

OTHER MINOR PRODUCE.

197. The following statement will show the realizations from minor produce, such as apta and tembhurni leaves, shembi bark, tarwad, honey, wax, fruits, stones, karvi, &c., removed from the forests by consumers or purchasers in the several divisions of the Northern Circle:—

No.	Division.	Amount.	Remarks.
		Rs. a. p.	
1	North Thána ...	4,101 0 0	* Of this amount Rs. 7,780 are for rosha grass stills.
2	South Thána ...	2,375 0 0	
3	East Khándesh ...	542 0 0	
4	West Khándesh ...	*9,800 0 0	
5	Násik ...	1,399 0 0	
6	Ahmednagar ...	1,418 0 0	
7	Poona ...	2,913 0 0	
8	Sátára ...	4,044 0 0	
9	Sholápur ...	530 0 0	
10	Surat ...	6,337 0 0	
11	Panch Maháls ...	2,193 0 0	
	Total ...	35,152 0 0	

3.—PRODUCE REMOVED BY RIGHT-HOLDERS.

198. No rights, save of way and water access, have been found to attach to the forests of the Northern Circle by the Forest Settlement Officers, and therefore right-holders have no *locus standi* in the forests.

4.—FREE GRANTS OF TIMBER.

199. A comparative statement of free grants of timber which have been made from forest reservations during the past two years in the several divisions of the Northern Circle is given below :—

No.	Division.	1886-87.	1887-88.	1888-89.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
1	North Thána	50 0 0	43 14 0	340 0 0
2	South Thána	336 5 0	1,464 4 0	1,166 8 0
3	East Khándesh ... ..	.....	15 10 0	.....
4	West Khándesh	1,639 4 0	651 3 6	159 4 0
5	Násik	348 10 4	520 10 4	367 9 7
6	Ahmednagar ... ..	.....	34 7 8	4 0 0
7	Poona	120 0 0	95 0 0	817 0 0
8	Sátára	52 8 0	190 8 0	85 8 0
9	Sholápur ... ..	.....	.....	.....
10	Surat	724 0 0	36 0 0	198 8 0
11	Panch Maháls	973 10 0	998 5 6	307 5 0
	Total ...	4,244 5 4	4,049 15 0	3,440 10 7

Imports and Exports of Forest Produce.

200. The following statement shows the imports and exports in the North Thána division :—

No.	Range.	IMPORTS.		EXPORTS.			REMARKS.
		Timber.	Firewood.	Timber.	Firewood.	Manvel Bámbug.	
		Pieces.	Khandis.	Pieces.	Khandis.		
1	Sálsette ...	2,740	2,535	1,037	454	...	
2	Bassein ...	...	...	...	20,318	6,326	
3	Máhm ...	...	...	70,034	34,929	66,777	
4	Dáhanu ...	...	...	110,281	12,461	169,019	
5	Umbargaon ...	...	430	11,377	7,611	...	
6	Váda ...	...	...	43,274	1,795	...	
	Total ...	2,740	2,965	236,003	77,568	242,122	

201. There is a very large import trade of teak and other timber, bámbug and firewood in the Khándesh District from the Mewas States, Barwani, Holkar's territory, Gáikwár's State, &c. The import duty on such material amounted to Rs. 31,858 against Rs. 27,313 in the previous year. The following statement shows the importations of timber, firewood, charcoal and bámbug into the West Khándesh division during 1888-89 from the six Mewas States :—

No.	Name of Mewas State.	Cart-loads.	Head-loads.	Donkey-loads.	Total.
1	Singaspur	669	124	.....	793
2	Chikholi	4,324	...	.....	4,324
3	Nawalpur	355	2	.....	357
4	Nala	235	...	.....	235
5	Raisingpur	6,579	294	.....	6,873
6	Kathi	4,119	136	97	4,352
	Total ...	16,281	556	97	16,934

201-A. It has not been found to be possible to reduce to the denomination of cubic feet all the timber and firewood exploited from the forests because in the first place the small timber consisting of rafters, &c., which is by far the larger portion of the timber yield of the forests of the Northern Circle, is not measured, and in the second place no attempt is made or could be made to measure the timber on foot in the coupes which are sold to contractors and purchasers to exploit, for the magnitude and cost of such work prohibit this being done. A very rough estimate of the out-turn in cubic feet could, of course, be drawn up, but it would have no pretence to accuracy and Government have ordered that in official reports hypothetical figures should be avoided. Indeed the advantage of an estimate in cubic feet of the timber &c., that has been exploited from the forests of several divisions of a circle is open to question, for it may mislead instead of instruct. The financial statement of the year conveys information regarding the revenue yield of forests, and these figures which are correct are more useful for comparisons than mere estimates of what has been the yield in timber or firewood.

201-B. Timber and other forest produce is exploited from the forests chiefly by means of carts drawn by bullocks, as cart roads traverse the forests in all directions. When the fellings are made upon the sides of hills, of ravines, and in other places inaccessible to carts, the timber is dragged up or down, as the case may be, to the nearest cart track generally by oxen, buffaloes being largely employed; the animals are yoked to the larger end of the log and they drag it along the ground. Manual labour also is largely utilized in conveying rafters and small timber from difficult parts of the forests to roads and temporary depôts &c. Pack-bullocks are likewise used for the carriage of forest produce. The Wanjárs in the Sâtpuda forests bring bamboos and small logs of wood to the market towns of the Tápti valley by means of pack animals.

CHAPTER V.

FINANCIAL RESULTS.

202. The forest revenue of the year is the largest on record, as will be seen from the figures given below, dating from 1878-79, the year of the introduction of the Indian Forest Act, whereby forest conservancy became more real and effective than it had been before.

				Rs.
1878-79	...	...	...	4,48,850
1879-80	...	...	...	6,07,625
1880-81	...	...	...	6,12,710
1881-82	...	...	...	7,99,498
1882-83	...	...	...	9,13,532
1883-84	...	...	...	9,58,315
1884-85	...	...	...	10,08,725
1885-86	...	...	...	10,37,297
1886-87	...	...	...	9,13,101
1887-88	...	...	...	9,68,625
1888-89	...	...	...	11,60,769

203. The following statement conveys a comparison between the revenue and expenditure of the year under report and that of the preceding year:—

Official year.	Receipts.	EXPENDITURE.				Net Revenue.
		A. Conservancy and Works.	B. Establishment.	Total.		
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1887-88 	9,68,625 3 5	2,26,095 14 1	4,97,039 9 9	7,23,135 7 10	2,45,489 11 7	
1888-89 	11,60,768 8 5	2,41,836 7 4	4,85,575 12 5	7,27,412 3 9	4,33,356 4 8	
Increase 	1,92,143 5 0	15,740 9 3	.....	4,276 11 11	1,87,866 9 1
Decrease ... ... ...	.....	.....	11,463 13 4	.....	.....